9: Stadling--90 E-3 (1898) 1901 Yakut
116, 234, 426, 466, 511

"The Yakut cattle are very small and of inferior quality. The cows give very little milk; a family of ordinary size needs for its subsistence from 10 to 15 head of cattle, of which 7 to 9 are milch cows. The great majority of Yakut families, however, have not so many, and want and famine are very common among them. As a rule they are deeply in debt to a few wealthy individuals, mostly of their own people, who keep them in a state of slavery, and being thus compelled to work most of their time for them, they are unable during the short summer to provide for their own wants. Their principal work consists in gathering hay on the meadows and marshes."

10: Bush--299 T-3 (1865-67) 1871 Yakut
116, 234, 262

"The Yakouts are by far the most superior and numerous tribe of Eastern Siberia. They dwell in permanent abodes, and are very domestic in their tastes. Horses and cows are their constant companions, even sharing their houses with them. Both are highly esteemed for their flesh, and the milk of the latter figures largely in their bills of fare. They manufacture a kind of butter by boiling the milk, which is greatly used by the Russians, all over the country, as a substitute for table butter."

11: Lansdell--301-302 M-3 (1879) 1882 Yakut
116, 234, 252, 262, 273

"Milk is in general request among them, whether from cows or mares; and when they are [302] in the neighbourhood of the Russians, and can get flour, they do so; but far away in the forests they make a sort of porridge or bread, not exactly of sawdust, but of the under bark of the spruce, fir, and larch, which they cut in small pieces, or pound in a mortar, mixing it with milk, or with dried fish, or boiling it with glutinous tops of the young sprouts. In spring, when the sap is rising, they gather their bark harvest. They make also fermented beverages of milk; and in the height of summer, when the mares foal, an orgie is held, at which the men drain enormous bowls of this intoxicating liquor; whilst the women, denied the privilege of intoxication, solace themselves by getting as near to it as they can by smoking tobacco. The distillation of sour milk is also practised, producing a coarse spirit known as arigui. They devour likewise enormous quantities of melted butter. This also can be prepared in such a way as to cause intoxication when taken in sufficient quantities."

17: Erman--299 [2] N-3 (1828-29) 1850 Yakut
116, 262, 527, 234

"No less peculiar is the food of these people; they all prefer horse flesh to beef, but are so careful of their cattle that none but the richest slaughter any regularly, the rest only on festivals and special occasions. At wedding feasts all the guests are treated with beef, and the bride serves up to her future lord a boiled horse's head, garnished with a kind of sausage made of horse flesh. Far more important to the majority of the Yakuts is the milk of their cows and mares. In summer they have the greatest abundance of it, and then they use it unmixed in making many dishes. For winter they keep a stock of milk in vessels of birch bark, and with a certain quantity of it, thinned with water, and some vegetable substances, they make their daily porridge. It is only in the neighbourhood of the Russians that they can procure flour for this purpose; in the remoter yurts, the under bark of the fir and larch supplies the ordinary material of bread. This is pounded in a mortar, made, like the walls of the yurts themselves, of cow-dung laid on basket work, and frozen hard."

17: Erman--299-300 N-3 (1828-29) 1850 Yakut
116, 234, 273, 796

"In June and July, when the mares foal, the Yakuts show themselves as skilful as the Bashkirs, Buraets, and other Siberian tribes, in the art of setting mare's milk into the vinous fermentation. They then celebrate a religious thanksgiving and festival, at which the men empty off, at a single draught, immense wooden goblets of these intocicating drinks. The women are, on these occasions, obliged to content themselves with the intoxication of tobacco fumes. There are some, also, who distil the sour milk, as is done by the Buraets, in an iron kettle; which, in order to collect the vapours driven off, is covered with a board, and provided with a wooden tube passing under water. The Yakutian name, aruigui, designates both this national spirit and [300] Russian brandy. Another oily kind of drink, made of milk, is used in winter; the Yakuts call it arui, but the Russians, in plain terms, melted Yakutian butter; and this, too, is capable of intoxicating if it be taken in sufficient quantity. Besides these, all kinds of fish and animals of the forest are eaten by the Yakuts, without scruple, and without much delicacy of selection. The branch of this nation which is cut off from the rest, near the shores of the Icy Sea, are able to conform to necessity, and to subsist entirely on this kind of food for the keeping of reindeer, which enriches the Tunguzes in that quarter, has never succeeded with the Yakuts."

17: Erman--325 N-3 (1828-29) 1850 Yakut
116, 234

"To-day I was treated, for the first time, to the most important production of the dairy in this country, --I mean what is called Yakutian butter. This is, in fact, an oily substance, of an agreeable sub-acid flavour; and I could plainly distinguish, in the frozen pieces set before us, a portion that was thick and exactly like our butter, but coagulated smaller lumps, which was beginning to melt, even with the heat of the room. This is eaten, during the winter, by the Yakuts in large pieces without bread; I could also understand what I had previously heard, respecting the drinking of the melted butter, and of its intoxicating effects on those who take it to excess. Its sourish taste proves that a considerable portion of it has undergone fermentation, and is therefore in a state capable of yielding a vinous spirit."

37: Dobell--305-306 G-2 (1812-13) 1830 Yakut
116, 234, 262, 482

"These people hav- [306] ing plenty of cattle, I procured, for my journey, a good stock of milk, butter, &c. which I carried after the Yakut manner, in two leathern bags, made of horse-hide, and called simmire. The Yakuts mix sour milk and cream together in those bags, which, after one has travelled a few hours on horseback, becomes butter and buttermilk; the butter collecting in small lumps, from the size of a pea to that of a marble. A Yakut drinks the butter and butter-milk together, or eats the butter in handfuls with his boiled meat, oftentimes in such quantities as, were I to relate it, would exceed belief! I found, however, by experience, when on the Towinsk road, that butter and sour butter-milk eaten together are much lighter on the stomach than butter eaten in the usual way. Indeed, the sour butter I could eat more of, without feeling cloyed, than of the ordinary sort."

37: Dobell--343-344 G-2 (1812-13) 1830 Yakut
116, 234

"They seem to understand very little of the economy of a dairy, making no cheese, and but bad butter; the latter being sour cream either kept until it grows hard, and the whey then drained off, or melted over the fire, and poured out clear into birch vessels, called tougty, where it becomes hard, and will keep a considerable length of time in such a cold climate. Their white butter, made by the first-mentioned process, is quite sour as well as strong; while that which is boiled becomes yellow, and were it not for the oily and smoky flavour it acquires by their careless manner of making it, would be very excellent. I tasted afterwards butter of this description at Yakutsk, and found it perfectly good, though my host informed me it had been made the previous season. Some that I made [344] my servant melt in this way, carefully covered, proved very palatable. They have a custom also of drying clotted or scalded cream in cakes--one of the delicacies presented to me that really deserves the name: some of it, however, was smoky, I suppose for want of attention."

38: Dobell--39-40 G-2 (1812-13) 1830 Yakut
116, 234, 465, 177.46 Russia
636.46

"Those Yakut labourers and herdsmen employed by the Russian inhabitants appeared to me to be very well off: for instance, a common labourer receives two really good and comfortable suits of clothes a year, and forty to fifty roubles in money, besides being very well fed. If a herdsman, and one who undertakes the care of twenty cows, he gets the milk of five or six cows for his trouble; and for the remaining [40] fourteen or fifteen, he is bound only to deliver thirty pounds of butter per cow to the owner during the summer. The skimmed milk, and whatever butter he may make beyond the quantity stipulated, are all his own. In case of accident or death of any of the herd, he is not responsible unless it happens through his want of care. From this statement it will be perceived that a herdsman has considerable advantages; for it must be a very bad cow that will not yield more than thirty pounds of butter during the summer. The Yakuts, however, know how to manage horses better than horned cattle. Their calves are never weaned until they are a year old; nor will a cow give down her milk unless the calf is brought to her; and if the calf dies she will give no more milk. This is a Yakut custom that only prevails in the eastern parts of Siberia."

38: Dobell--40-41 G-2 (1812-13) 1830 Yakut
116, 234, 252, 262

"They make butter by melting sour cream over the fire; after it is melted, it is strained into birch vessels and suffered to cool: the milk that remains is suffered to sour; and this, boiled with rye-flour, and called in their language bordook, is a favorite food, and, I believe, a very wholesome one.

Another dish they are fond of is solimat; [41] this is rye-flour and butter boiled in a copper kettle until it begins to burn a little, when hot water and salt are added occasionally, until the whole is well boiled. The flour and water form a kind of pudding, and the greater part of the butter floats on the surface, which the Yakut delights to sip with his solimat."

39; Jochelson E-5 (1888-97) 1906 Yakut

dress and dress-ornamentation of the Tartaric peoples, the dualistic religious ideas, and the poetical folk-lore, of Western Asia.

In their old country they were principally horse-breeders. The horses were employed both as beasts of burden and as animals for riding; their skins were used for clothing; their flesh, for food; and kumiss, the fermented drink prepared from mare's milk, served not only as a stimulating beverage, but also as a most important nutritious food.[1] For a time after their arrival in their new abode, the horse was still their principal domestic animal, and kumiss their essential food; but gradually the climatic conditions of the country on the one hand, and contact with Russian culture on the other, have exerted a modifying influence, which is still operative, over both the mental and the material culture of the Yakut. A small part of the tribe in the extreme north of the Yakut province must have experienced a decadence of their former material life. This minority became reindeer-breeders, dog-breeders, or hunters, and fish-eaters. But even into these new lines of life the Yakut introduced more advanced methods.

The tribe as a whole, while engaged in horse and cattle breeding as their chief occupation, began to increase the number of their horned cattle at the expense of their number of horses. Of cow's milk they could make, for use during the long winter, butter, a kind of cheese, and some other milk products which cannot, as we shall see later, be made from mare's milk. The Russian gold-mining companies on the rivers Olekma and Vitim proved profitable buyers of these cattle, and this gave an impetus to the raising of them. Finally, the cultivation of cereal plants, borrowed from the Russians in the southern parts of the Yakut Province, where the climate allows of it, has made such progress in the last twenty years, that at present agriculture is the chief occupation, and bread the staple food, of many Yakut families of the District of Yakutsk, and particularly of that of Olekminsk. Nowadays large droves of horses, and

[1] Some travellers consider that the Yakut horse belongs to the present race of horses of the steppes of southwestern Siberia; but it is difficult to say whether the Yakut horse of to-day has any connection with the extinct horse, the fossil remains of which have been found in the polar regions of northeastern Siberia.

398 Jochelson E-5 (1888-97) 1906 Yakut

231 mares for milking, can be found only in those districts far removed from the centres of influence of Russian culture, and they belong to a few very rich families.

178 Together with the passing of the production of kumiss, the ancient ornamented kumiss vessels and goblets are also disappearing, as well as the customs, festivals, and ceremonials associated with the production and use of kumiss. Kumiss, which of late has been recommended by physicians as an excellent therapeutic agent in some diseases, was known as a nutritious form of food in remotest antiquity to all the nomadic peoples of Central Asia and of the southeastern part of Europe. Herodotus also mentions it. It is poorer in fat, casein, albumen, and salts, but much richer in milk-sugar, than cow's milk, and therefore is not adapted for butter and cheese making. Fresh mare's milk tastes somewhat disagreeably sweetish. The Yakut do not like it fresh as a drink, but they take it when it is boiled, and also in their tea. Formerly they made from it — cooked with the pounded roots of *Lilium spectabile, L. martagon, Butomus umbellatus,* or *Artemisia vulgaris* — a kind of gruel called *butahas*. As far as we know at present, the preparation of kumiss from mare's milk is based on the fermentation caused by micro-organisms. Under their influence, the milk-sugar turns to lactic acid. When this process is over, the fermentation of alcohol from the lactic acid begins. It has been found of late years that the micro-organisms of kumiss, like those of kephir (a fermented drink prepared from cow's milk), form grains, which can be washed, dried, and preserved. With their aid, kumiss is nowadays prepared for medicinal purposes.

234 The Yakut, like the Kirghis and Bashkir, use as a ferment
273 some old kumiss or the residue of the kumiss of the past year, carefully collected from the vessels, and dried and preserved. This ferment of kumiss is called *xoyū* ("pulp"). If they have none, the Yakut, as well as the Bashkir, use sour cow's milk as a ferment; but such kumiss is not considered good by
[415] the Yakut. When the mare is being milked, buckets made of birch-bark (see Plate XXII, Fig. 4) are used as vessels to receive the fluid. When the milking is finished, the buckets are left until the milk becomes cold, when it is diluted with an equal

39: Jochelson E-5 (1888-97) 1906 Yakut

quantity of cold water which has been previously boiled; and the mixture is put into an ox-hide bag or churning-vessel called *simir* (Plate XVIII, Fig. 4), and some of the above-mentioned ferment is added to it. The only use of the water is to increase the quantity; so that when a strong kumiss is desired, less water is added to the milk. The churning-bag is made of ox-hide which has been soaked in blood. This gives it a black color, and also makes it water-tight. For the latter purpose it is also smeared, particularly the seams of its sides, with melted butter. It is ornamented with beads of different colors and with brass or silver pendants.

Before the preparation of kumiss, the churn is placed on a low stool (called *simir oloko*) not far from the fireplace (Plate XIX, Fig. 3), and is hung by a long ornamented ribbon, which passes through brass rings at the neck of the vessel, to one of the middle posts of the house. This is done in order that the churning-bag, when softened by the fluid contained in it, shall not drop down. The ribbon is of black and white horsehair twisted, and is ornamented with leather tassels. In the mouth of the churn is a hollow wooden mouthpiece called *kōñkōlōi* ("hollowed through," from *kōñdōi*, "hollowed"), through which the churning-stick (*xamsatar*, from the verb *xamsat*, "to stir") passes into the churning-vessel (Plate XVIII, Figs. 1, 4; Plate XIX, Figs. 1, 2). Both the mouthpiece and the churning-stick are ornamented with engravings, and brass or silver rings and pendants. The churning-stick is usually in the shape of a horse's hoof. The process of churning lasts from a day and a half to two days, and the women and children often assist in it. The kumiss is then poured into hide or birch-bark barrels, and is ready for use. Such kumiss has an agreeable acid taste, and contains but very little alcohol. The Yakut have no bottles in which to store their kumiss, but when travelling they put it into skin bags of the same shape as the churning-vessels. The opening of the bag is closed by two small sticks tied together at their ends. The bags are placed on the riding or pack horses like saddle-bags. They thus form skin bottles, in which the fermentation continues working out the alcoholic qualities, and the kumiss becomes a strong and heady drink.

(up to the beginning of the 20th century), is a humped iron scythe with a short, curved handle with which the grass was rather hewn (left and right) than mown. Later on this scythe was replaced by the Russian Lithuanian-type scythe and is never used nowadays. The Yakuts mowed the grass in the alasy and river valleys, gathering the hay into small sheaves, in which it often became soaked and rotted away, hence the quality of the hay was not usually very high.

In the winter, the cattle were kept in cold, dark and crowded khotons, which were usually built under the same roof as the dwelling; the animals were usually herded into the khoton only at night, while in the daytime they were left outside, in the frost. When there was a lack of hay, the cattle had little to eat, and were watered with icy water from a hole in the ice. The austere conditions under which the cattle were kept and the cold climate made them hardy, but unproductive. The Yakut cow yielded an average of 60 buckets of milk a year, and for two or three months in the winter was left unmilked. The mares were only milked in the summer, as a general rule.

Both the cattle and the horses were utilized in much the same way; they gave milk, meat, and hides, and served for transportation (oxen were usually harnessed to carts, while horses were ridden, or carried packs).

The predominance of pastoralism involved preservation of the semi-nomadic way of life. Until recently the Yakuts retained the custom of moving twice a year—round about May and October—from the winter to the summer camps, and back again. The winter dwellings were usually set up near the mowings, while the summer dwellings (which, incidentally, were comparatively close by the former) were built close to the pasture-lands.

Fishing, Hunting and Agriculture

The second branch of economy in importance was fishing. There was a tremendous amount of carp and a small fish called mundu in the abundant lakes, and coregonus muksun, white salmon and so on were plentiful in the rivers. For the poor people who had no cattle, fishing had long been a main occupation; the expression balyksyt (fisherman) is used in documents of the 17th century in the sense of "a poor man." At the same time, there were actually complete tribal groups who seem to have lived chiefly by fishing. These were the so-called "foot clans" of the Yakuts (Osekui, Ontuls, Kokui, Kiriks, Kyrgydays and Orgots). These tribes, who were clearly a remnant of the very ancient prepastoral population, were first discovered in the 17th century by Russians on the Vilyuy. For the Yakut pastoralists, fishing was an essential subsidiary occupation and has retained its importance until our own day.

The fish were caught chiefly in the summer, but there was also fishing through the ice during the wintertime. Use was made of seines which were chiefly made of horsehair, smaller nets, and sack-nets, etc. In the autumn there was usually collective fishing with a large seine, and the catch was divided among all those taking part, in accordance with ancient custom.

There is a hypothesis (V. L. Seroshevskiy) that Yakut fishing was only recently borrowed from the Evenks and Russians. In actual fact, fishing is the oldest form of economy among the population of the Lena region, including the ancestors of the Yakuts.

Hunting is the third, though far less important, branch of Yakut economy. Just like fishing, it goes back to very ancient times. During the

53:Tokarev and Gurvich E-4 (no date) 1964
RV2 Yakut RV2

474 and the Stalin farm in the Megino-Kangalasskiy Rayon. The first of these
621 barely numbered 10 households in the 30's when first organized, but now
433 unites 265 individual households. This collective farm has many different branches. It has 1200 hectares of ploughland, 3000 hectares of meadowland, 2700 hectares of pastureland, and upward of 3000 head of livestock. The collective farm has seven subsidiary farms for dairy-farming, horse-breeding, reindeer-breeding, poultry and pigs. Since 1953, fox and rabbit
377 have been reared on it. The farm has two power stations. The electricity
234 is used for purposes of illumination, threshing and cleaning the seed, grinding grain and sawing wood. An electric milking system for the cows is being introduced.

Well-designed houses, schools and hospitals have been constructed in
474 the collective-farm settlement. It has its own club, library and radio-
368 relay station. A park has been made near the settlement, and there is also a stadium. Films are shown regularly and amateur concerts are often organized.

474 The Stalin collective farm in the Megino-Kangalasskiy Rayon became
311 the largest collective farm in the Republic as soon as the neighboring
433 collectives merged with it. By government decree, it is the possessor of 67,000 hectares of land, of which 2798 hectares are ploughland, and almost 11,000 constitute meadowland and pastures. The remaining land is taken up by forests. The collective farm sows almost 800 hectares of wheat, 720 hectares of spring and winter rye, more than 250 hectares of oats and bareley, and 55 hectares of vegetables and potatoes. In 1955 there were about 3500 head of cattle on the farm, more than 1200 horses, 250 reindeer, and more than 100 pigs; furthermore, the collective farm has a subsidiary poultry farm and a section for breeding fur-bearing animals.

474 At the present time the collective farm has three small power stations
377 with a total output of 125 kilowatts. The electricity is used for threshing
246 grain, driving a sawmill and operating lathes. In view of the increased generation of electricity the farm has mechanized the delivery of fodder to the byres. There are more than 500 different types of machines, 6 trucks, 2 passenger cars and 12 engines on the farm.

434 In 1955, the farm's income was 2,700,000 rubles. The material status of the farmers has been considerably improved.

At the same time their cultural standards have increased.

212 There is not one single illiterate person on the farm: 120 farmers have
871 a secondary education or higher, 10 of them are studying at universities and 165 in tekhnikums and secondary schools. Many of the collective-farm members return to their own farms after receiving their education.

233 Great progress has been attained by the northern farms of the Nizhne-
224 Kolymskiy, Bulunskiy, Olenekskiy, Anabarskiy and other rayons. Their
563 achievements are due to the overall reorganization of reindeer-breeding and the trapping industry. On many of the farms there are Yakuts, Evenks, Chukchi and other minorities all working together.

Socialization of the reindeer and the creation of large herds has made it
474 possible to introduce such veterinary measures as stage-by-stage nomad-
232 izing based on the rotation of pastureland, inoculations, and day and night
233 guarding of the herds. In the past Yakutiyan reindeer-herders never made use of dogs, which, for example, among the Nentsy make the work of the herdsmen easier. Nowadays reindeer-herding dogs are used extensively in the Nizhne-Kolymskiy, Allaikhovskiy and Bulunskiy Rayons.

474 The northern collective farms have not confined themselves to the tradi-
433 tional branches of economy, namely, reindeer-breeding, hunting and fishing,
233 and are courageously developing new branches. On most of the

178 the other hand, [201] the possibilities for maximizing profits from
439 the sale in foreign markets of such valuable furs as polar fox are not fully utilized, since on account of their trips transporting loads the carters are compelled to cut down on the number of times they can make the rounds of their traps.

233 In places where there are many fish and wild reindeer--for ex-
262 ample, in Pyasina--domestic reindeer are hardly ever used as food. On the other hand, in places where there is little game, the average family is forced to use a minimum of about forty head and more in the course of a year, especially in the east, where the population hardly uses any grain at all, substituting meat in its place. All parts of the reindeer are used for food, not excluding even the con-
233 tents of the stomach. Reindeer milk is also used as food. [Fig. 18].
234 They milk reindeer from June until Shroud-Day, the holiday called
262 "Pokrov" [Feast of the Protection of the Holy Virgin] (November 14), but there are also some cows without calves which are milked the year round. The milking is done once a day. In the summer they usually milk the reindeer before tea, so as to have milk to pour into their tea, and when they do this they milk with the right hand alone, and with the left hand they hold a mug or an iron bucket under the stream of milk. In winter they freeze the milk and eat it in this solid
233 form, chopped into small pieces. A cow usually gives a half-bucket
291 of thick, tasty milk. For eating purposes they kill only old and sick reindeer; for clothing they kill almost exclusively young reindeer. If a domestic reindeer is used for food during a scarcity of fish and wild game, its hide is much more often used for clothing, at least among the well-to-do, whereas the hide of a wild reindeer, owing to its coarseness, is used only by poor people. We propose to give more detailed information regarding the number of hides which are used by a family in one year for their various needs in a separate work on the clothing of the Dolgan.

321 From reindeer horns are fashioned various small household articles.

In concluding the ethnographic part of my work on reindeer breed-
121 ing among the Dolgan, I make the reservation that consideration of the Dolgan ideology was consciously left out by me; in order to see to what degree the whole religion of the Dolgan is permeated with elements of reindeer breeding, it would be necessary to describe the religion in a very detailed fashion, which is outside the scope of the present sketch. It is much more expedient to give a description of the religion separately in an independent work.